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United Kingdom

Oilseeds and Products

Energy Crops May Transform British Landscape

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Report Highlights:
The UK government has set targets to achieve 20 percent of electricity generation from renewable energy sources by 2020, and to have 5 percent of the country's needs for automobile fuel met with biofuels by 2010. To meet these targets, it is estimated that 7 percent of the UK's land will be dedicated to energy crops such as willow, and that an increase of about 1 million hectares of oilseed rape will be required.

Includes PSD Changes: No
Includes Trade Matrix: No
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London [UK1]
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Energy Crops May Transform British Landscape

Renewable energy is an integral part of the UK government's long-term aim of reducing carbon dioxide emissions by 60 percent by 2050. The UK utilizes the power of the sun, wind, waves, tides, and biomass (including waste) to generate electricity. Today renewable energy sources account for just 5 percent of the UK's total electricity output, but the UK government has set a target to increase this to 20 percent by 2020.

Within the renewable energy sector, biomass currently makes up 32 percent of UK renewable electricity generation. It is estimated that to meet future needs energy crops, such as willow, would have to cover an area of 15,200 square km (7 percent) of Britain's land area.

In addition, there are also likely to be significant land use changes to meet the UK government's Road Transport Fuels Obligation. This includes a target of 5 percent inclusion of biofuel within all fuel by 2010. The demand for bioethanol to blend with petrol is likely to be met with surpluses of domestically produced wheat and sugar beets. However, to achieve sufficient oil for the production of biodiesel, the UK will need to significantly increase the area of oilseed rape by around 0.7 million to 1 million hectares. Currently there are 1.8 million hectares used for cereals in Great Britain.

While the benefits to the environment in terms of greenhouse gas savings could be substantial, the UK's renewables revolution will need to be well planned to avoid serious consequences for biodiversity and water tables. A study by the environmental consultants ADAS predicts that much of the biomass and biofuel crop increase will be seen in the East Midland region of England. As much as 20 percent of land in this region may be planted to willow and miscanthus. Sustainable land management will be a key factor since cultivation of single crops could result in lowered water tables and/or a loss of habitat for declining wildlife species.

A balance of land use will need to be achieved between the renewables industry and food production. The UK agribusiness consultancy – ADAS predicts that "UK farmers will begin to diversify from traditional practices to include alternative energy generation, so that UK agricultural businesses will be enjoying improved economic performance by 2030".

A map detailing the estimated distribution of UK renewable energy sources is shown on the next page.

A Vision of the Distribution of Renewable Energy Sources in the Great Britain of 2020
Source: ADAS